

**REMARKS**

Claims 1-9, 11-14, and 21-25 are pending. Claims 3-5 and 13 have been amended. The claims remain 1-9, 11-14, and 21-25.

Claims 3, 5, 13, and 22-25 stand rejected under 35 U.S.C. § 112, second paragraph, on the basis of indefiniteness. Claims 3-5 and 13 have been amended to address the Examiner's concerns, and are submitted as particularly pointing out and distinctly claiming the subject matter of the invention.

The rejection with respect to claims 22-25 on the basis of indefiniteness is not understood. In the process recited in claim 22,  $\beta$ -glucanase is inactivated in the cereal or mixture of cereals to produce treated cereal. Then, enzymes are utilized during the process having  $\beta$ -glucanase activity sufficient only to eliminate from the treated cereal or mixture of cereals not more than 50% of soluble  $\beta$ -glucan which is contained before the process is effected in the cereal or mixture of cereals. Thus, the enzyme in the cereal is inactivated, whereas enzymes that are used in the process (from sources other than the inactivated cereal) are determined by the tolerable amount of  $\beta$ -glucanase activity. The enzymes used in the process of the invention must not be sufficient to degrade more than 50% of soluble  $\beta$ -glucan. In support of the presence of  $\beta$ -glucanase activity in other enzyme preparations, Applicant encloses a paper by J Jaskari et al. in Cereal Chemistry 72 (1995) 625-631. Starting on page 630, second paragraph, a  $\beta$ -glucanase activity in the enzyme  $\alpha$ -glucosidase is described. Consideration of claims 22-25 respectfully is requested.

Claims 1-9 and 11-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Scott (J. Inst. Brew. 78:179-186) in combination of "applicant's admissions" on page 1 of the specification. Applicant respectfully traverses the rejection.

The present invention as recited in claim 1 is a process for the production of a cereal wort or beer having a high content of soluble  $\beta$ -glucan of more than 0.2 wt % from a

cereal or mixture of cereals in which a  $\beta$ -glucanase activity of any ingredient employed in the process will not decrease soluble  $\beta$ -glucan by more than 20 wt% compared to the yield from the corresponding source of non-germinated cereal or mixture of cereals. The process includes inactivating  $\beta$ -glucanase in at least one cereal to produce a treated cereal, forming an aqueous cereal slurry containing from 10% to 30% by weight of the treated cereal, the cereal being wet or dry milled, and mashing the slurry at a temperature above 50°C in the presence of at least one starch degrading enzyme and at least one protein degrading enzyme.

In contrast to the present invention as recited in claim 1, Scott does not disclose the process recited in claim 1 of the present invention, as the Examiner admits. Further, the process disclosed by Scott does result in the production of a cereal wort or beer having a content of  $\beta$ -glucan of more than 0.2% by weight % in which the original content of soluble  $\beta$ -glucan from the corresponding source of non-germinated cereal or mixture of cereals is decreased by no more than 20 wt %. On the contrary, the results given in Table III of Scott show that the  $\beta$ -glucan breakdown in malting and mashing is well in excess of 20%. Thus, Scott does not anticipate or render obvious the present invention as recited in claim 1.

Applicant's disclosure of an interest in health benefits does not cure the deficiencies of Scott. Applicant disagrees with the Examiner's conclusion of obviousness based on the nutritional interest in  $\beta$ -glucan. On the contrary, determinations of obviousness must be based on evidence. Applicant submits that the interest in  $\beta$ -glucan provides no evidence regarding the obviousness of the recited process. The desirability of a particular result might be a motivating factor in seeking a solution, but it has no bearing on the obviousness of a particular process, nor does it provide the motivation to combine references necessary for a *prima facie* obviousness rejection. The present invention as recited in claim 1, and its dependent claims 2-9 and 11-15, is submitted as being patentable over the cited references.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. According, the Examiner is respectfully requested to pass this application to issue.

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Respectfully submitted,

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